

Notice of Allowability

Application No.

10/668,447

Examiner

An T. Luu

Applicant(s)

PEDERSEN, BRUCE

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7-29-05.
2. ☒ The allowed claim(s) is/are 2-7,9-15,17-22 and 24-27.
3. ☒ The drawings filed on 22 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: Applicant has amended claims to incorporate the allowable features indicated in the previous Office Action. Specifically, none of the prior art teaches or fairly suggests, among other things, the following limitations:

- Detecting phases of the input clock signal and the delay clock signal to generate a phase detection signal by dividing a frequency of the delay clock signal using a first frequency divider to generate a first frequency divided delay signal, and comparing phases of the input clock signal with the first frequency divided delay signal to generate the phase detection signal using a phase comparator as required by claim 2.
- Selecting the delay clock signal or the input clock signal to provide the selection signal in response to the detect signal further comprises: coupling a feedback loop around an adjustable delay circuit to form an oscillator circuit that generates the delay clock signal when the detect signal has a first value that selects the delay clock signal as the selection signal; and decoupling the feedback loop from an input of the adjustable delay circuit when the detect signal has a second value that selects the input clock signal as the selection signal as required by claim 5.
- Means for detecting edges of the delay signal to generate a detect signal; means for selecting the input clock signal or the delay signal as a selected signal in response to a value of the detect signal, wherein the selected signal is delayed by the means for controlling to generate the delay signal; and means for dividing a frequency of the delay signal by N to generate a first divided signal, wherein the means for detecting

the phase difference between the input clock signal and the delay signal compares the input clock signal to the first divided signal as required by claim 17.

- A selector that selects the delay signal as a selected signal during a first state of operation to cause the circuit to operate as a PLLS and wherein the selector selects the input clock signal as the selected signal during a second state of operation to cause the circuit to operate as a DLL; a first frequency divider coupled to receive the delay signal and coupled to transmit a divided signal to an input of the phase detector as required by claim 24.
- A selector that selects the delay signal as a selected signal during a first state of operation to cause the circuit to operate as a PLL, and wherein the selector selects the input clock signal as the selected signal during a second state of operation to cause the circuit to operate as a DLL; and a logic gate coupled to a select input of the selector and coupled to receive a signal that causes the circuit to remain in the first state of operation as required by claim 27.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 571-272-1746. The examiner can normally be reached on 7:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

An T. Luu

8-9-05 